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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/771,752	02/04/2004	Nicholas J. Pinto	UPR-3000	3663

7590

04/05/2006

Patent Law Offices of  
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EXAMINER
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DRODGE, JOSEPH W

ART UNIT	PAPER NUMBER
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1723

DATE MAILED: 04/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/771,752

Applicant(s)

PINTO ET AL.

Examiner

Joseph W. Drodge

Art Unit

1723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 405,805,705,206.

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

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The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1,2,7,9-11 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Kaner et al patent 5,096,586.

For claim 1, Kaner et al disclose a method of suppressing microphase separation of the phases of a membrane by modifying its network to have interconnected pores that are interconnected in an irreversible manner (column 6, lines 35-38) by steps comprising dissolving half oxidized emeraldine base form of polyaniline ("PANiEB") in a solution (column 10, line 67-column 11, line 20), providing a porous membrane and placing the membrane in the solution (column 7, line 68-column 8, line 8), removing the membrane from the solution (column 11, lines 21-27) and evaporating the solution (column 11, lines 2-3 and 39-43).

For claims 2 and 10, the solution may be a form of methyl pyrrolidone or "NMP" (column 11, lines 4-5 and 8-13) .

For claim 7, the membrane may be in form of a film (column 7, lines 52-59).

For claims 9-13, the dissolved PANiEB may further be confined (or located within) pores of the membrane (column 6, line 65-column 7, line 11 and .

For claims 11 and 13, the membrane may be a hollow fiber, hence be in cylindrical form (column 7, lines 61-62).

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Claims 1,7 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by over the Zarbin et al publication ("Nanocomposite glass/conductive polymers").

For claims 1 and 9, Zarbin et al disclose a method of suppressing microphase separation of the phases of a membrane by encapsulation and in-situ polymerization (column 2, page 227) by steps comprising entrapping a solution of (page 231, paragraph bridging the 1<sup>st</sup> and 2<sup>nd</sup> columns) half oxidized emeraldine base form of polyaniline ("PANiEB") and in admixture with polypyrrole within the pores of a membrane (page 227, 2<sup>nd</sup> column, page 231, 2<sup>nd</sup> column and page 232, 1<sup>st</sup> column, providing a porous membrane (page 227, end of the 2<sup>nd</sup> column), placing the membrane in the solution (again page 231, paragraphs bridging 1<sup>st</sup> and 2<sup>nd</sup> columns), removing the membrane from the solution (page 231, 2<sup>nd</sup> column, 2<sup>nd</sup> paragraph) and evaporating the solution (page 228, section 2.3).

For claim 7, the membrane may be in the form of a film (for instance page 229, 1<sup>st</sup> column, 6<sup>th</sup> paragraph).

For claim 9, the PANiEB may be formed so as to be obtained in the pores of the membrane (page 227, bottom of 2<sup>nd</sup> column).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 2,5,6,8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Zarnib et al publication in view of Kaner et al.

Claims 2,5,6,8 and 10 (and claims dependent therefrom) differ in requiring the solution to be a form of methyl pyrrolidone or "NMP". However, Kaner et al teach to dissolve PANiEB in an NMP solution in the forming of a cast or doped membrane (see Example 1 spanning columns 11 and 12. It would have been obvious to one of ordinary skill in the art to have modified the process of Zarnib et al, by dissolving the PANiEB in an NMP solution, prior to contacting by the membrane, since NMP as a solvent for

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PANiEB forms an homogenous solution that is easily spreadable for film casting of a membrane (see especially column 11, lines 13-19).

Claims 3,4 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Zarbin et al publication in view of Martin et al patent 5,174,883 and Wei et al patent 5,120,827. Claims 3 and 4 differ in requiring the membrane to be in the form of a cylinder having cylindrical pores of approximately 20 nm in diameter. Zarbin et al disclose the membrane being impregnated with polyaniline as being a Nucleopore membrane (column 2 of page 227). Martin et al teach pores of a Nucleopore membrane being cylindrically shaped (column 3, lines 56-61 and column 4, lines 56-57). It would have been obvious to one of ordinary skill in the art to have formed the Nucleopore membrane of Zarbin et al to have cylindrically shaped pores, as taught by Martin et al, in order to have uniform flow distribution throughout the membrane.

These claims also differ in requiring the membrane to be a porous alumina disc. However, Wei et al teach that Nucleopore and Anapore (alumina-containing) membrane discs are interchangeable (column 7, lines 64-68). It would have been further obvious to have replaced the host Nucleopore membrane with an alumina anapore membrane, as taught by Wei et al, since such membranes are adaptable to forming drug-release microcapsules, with stable, consistent drug-releasing rates.

For claim 4, page 228, column 1, 2<sup>nd</sup> paragraph discloses the pore distribution being proximate 80 Angstroms which is approximately 20 nm.

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Claims 11 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Zabin et al publication in view of Kaner et al, as applied to claim 10, and further in view of Martin et al patent 5,174,883. Claims 11 and 13 differ in requiring the membrane to be in the form of a cylinder having cylindrical pores of approximately 20 nm in diameter. Zarbin et al disclose the membrane being impregnated with polyaniline as being a Nucleopore membrane (column 2 of page 227). Martin et al teach pores of a Nucleopore membrane being cylindrically shaped (column 3, lines 56-61 and column 4, lines 56-57). It would have been obvious to one of ordinary skill in the art to have formed the Nucleopore membrane of Zarbin et al to have cylindrically shaped pores, as taught by Martin et al, in order to have uniform flow distribution throughout the membrane.

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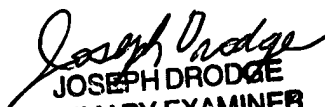
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Drodge at telephone number 571-272-1140. The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda Walker, can be reached at 571-272-1151. The fax phone number for the examining group where this application is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either private PAIR or Public PAIR, and through Private PAIR only for unpublished applications. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have any questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JWD

April 3, 2006

  
JOSEPH DRODGE  
PRIMARY EXAMINER